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Remarks

The Office Action dated January 15, 2003 has been received and reviewed. Claims 1, 10-13, 23-24, 29, and 31 have been amended. Claim 3 has been cancelled. And claim 34 has been added. The pending claims are claims 1-34. Reconsideration and withdrawal of the rejections are respectfully requested.

Claim Amendments

Claim 1 was amended to recite that the article includes a layer of retroreflective beads that are partially embedded in the non-adhesive side of the tape. Support for this amendment may be found, e.g., in Figure 2 of the present invention.

Claim 10 was amended to recite that the article includes a layer of retroreflective beads that are partially embedded in the first side of the foam backing. Support for this amendment may be found, e.g., in Figure 2 of the present invention.

Claims 11-13 were amended to reflect the amendment made to independent claim 10.

Claim 23 was amended to recite that the article includes a layer of retroreflective beads that are partially embedded in the second side of the foam backing. Support for this amendment may be found, e.g., in Figure 2 of the present invention.

Claim 24 was amended to reflect the amendment made to independent claim 23.

Claim 29 was amended to correct a typographical error.

Claim 31 was amended to recite that the article includes a layer of retroreflective beads that are partially embedded in the non-adhesive side of the medical tape. Support for this amendment may be found, e.g., in Figure 2 of the present invention.

New claim 34 was added to more completely claim the present invention. Support for new claim 34 may be found, e.g., in the Specification at page 6, lines 1-2.

The amendments to the pending claims do not narrow the scope of such claims. Further, no new matter was added.

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The 35 U.S.C. § 112, second paragraph rejections

Claims 2, 6-9, 11-14, 26-29, and 31 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention. Applicants traverse this rejection.

The focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. § 112, second paragraph is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. The essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of

(A) The content of the particular application disclosure;

(B) The teachings of the prior art; and

(C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

See M.P.E.P. § 2173.02.

Applicants submit that claims 2, 6-9, 11-14, 26-29, and 31 meet the requirements of 35 U.S.C. § 112, second paragraph for at least the following reasons.

The Office Action alleges that the phrase "capable of" in claims 2 and 31 is unclear. Applicants traverse this allegation.

Applicants submit that the phrase "capable of" does not render claims 2 and 31 unclear, even if this term is considered "functional language." There is nothing inherently wrong with defining some part of an invention in functional terms. See M.P.E.P. § 2173.05(g). Functional language does not, in and of itself, render a claim improper. *Id.* A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. *Id.* For example, it was held that the limitation used to define a radical on a chemical compound as "incapable of forming a dye with said oxidizing developing agent" although functional, was perfectly acceptable because it set definite boundaries on the patent protection sought. *Id.* (citing *In re Barr*, 444 F.2d 588, 170 U.S.P.Q. 33 (C.C.P.A. 1971)).

Here, one skilled in the art would understand what is meant by the use of the term "capable of" in claims 2 and 31. Further, the Office Action does not assert that claims 2 and 31

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would be unclear to a person of ordinary skill in the pertinent art in the context in which the term "capable of" is used. Instead, the Office Action makes an unsubstantiated assertion that this term, on its own, "does not constitute a limitation in any patentable sense." Applicants submit that this is not the proper analysis stated above for determining whether a claim meets the requirements of 35 U.S.C. § 112, second paragraph. Therefore, the use of the term "capable of" does not render claims 2 and 31 vague and indefinite under 35 U.S.C. § 112, second paragraph.

Further, the Office Action alleges that the phrases "being subjected" and "after being subjected" in claims 6-8, 11-13, 26-28, and 31 render such claims vague and indefinite. The Office Action alleges that the use of the phrases "being subjected" and "after being subjected" makes it appear that "a conditionally intended use is taking place without reciting what the affects to the beads are if the abrasion had not occurred." Applicants traverse this allegation and submit that one skilled in the art would be apprised of the scope of claims 6-8, 11-13, 26-28, and 31. In reviewing a claim for compliance with 35 U.S.C. § 112, second paragraph, the examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. § 112, second paragraph by providing clear warning to others as to what constitutes infringement of the patent. *See* M.P.E.P. § 2173.02.

For example, claim 6 recites that the layer of retroreflective beads exhibits an initial reflective brightness prior to being subjected to abrasion cycles and a final reflective reflective brightness after being subjected to a number of abrasion cycles. Claim 6 further recites that the final reflective brightness is greater than seventy percent of the initial reflective brightness when the number of abrasion cycles is approximately 750. One skilled in the art would be apprised of the scope of claim 6 because such claim clearly recites that the final reflective brightness is greater than seventy percent of the initial reflective brightness if the article is subjected to approximately 750 cycles.

Further, Applicants traverse the Office Action's allegation that claims 6-8, 11-13, 26-28, and 31 contain process limitations. As stated above, the focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. § 112, second paragraph is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. Applicants respectfully submit that

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whether the pending product claims recite process limitations is not germane to a proper analysis under 35 U.S.C. § 112, second paragraph.

The Office Action further alleges that the term “substantially held in place” in claims 9, 14, and 29 is a relative term that renders such claims indefinite. The Office Action alleges that such term is not defined by the claim, and the Specification does not provide a standard for ascertaining the requisite degree of the term “substantially.” The Office Action asserts that one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Applicants respectfully disagree with this assertion.

Applicants submit that one skilled in the art would know what is meant by the term “substantially held in place” given the claim language and the teachings of the Specification. *See In re Nehrenberg*, 280 F.2d 161, 126 U.S.P.Q. 383 (C.C.P.A. 1960) (holding that the limitation “to substantially increase the efficiency of the compound as a copper extractant” was definite in view of the general guidelines contained in the specification); *see also Andrew Corp. v. Gabriel Electronics*, 847 F.2d 819, 6 U.S.P.Q.2d 2010 (Fed. Cir. 1988) (holding that the limitation “which produces substantially equal E and H plane illumination patterns” was definite because one of ordinary skill in the art would know what was meant by “substantially equal”).

For example, claim 9 recites that the layer of retroreflective beads is substantially held in place on the non-adhesive side of the tape without the use of an additional adhesive or a resin. As stated in the Specification, brightness testing of the article before and after abrading the material is an indication of how well the reflective beads are bonded to the backing. *See, e.g.,* Specification, page 2, lines 26-27. Several examples described in the Specification further provide one skilled in the art with the necessary understanding of the term “substantially held in place.” For example, Table A of Example 1 indicates brightness testing of an article before and after the article was subjected to 750 abrasion cycles. As can be seen in Table A, the article exhibited a final reflective brightness of greater than seventy percent of the initial reflective brightness. This final reflective brightness is an indication that the layer of retroreflective beads is substantially held in place on the non-adhesive side of the tape. Therefore, one skilled in the art would know what was meant by the term “substantially held in place” given the plain language of the claims and the teachings of the Specification.

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For at least the above reasons, Applicants submit that claims 2, 6-9, 11-14, 26-29, and 31 meet the requirements of 35 U.S.C. § 112, second paragraph. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

The 35 U.S.C. § 102(b) Rejection

Claims 1-3, 6-8, 10-13, 23-28, and 30 were rejected under 35 U.S.C. § 102(b) as being anticipated by May (U.S. Patent No. 4,648,689). Applicants traverse this rejection.

However, to further move this case towards issuance, Applicants have amended claims 1, 10-13, and 23-24. Applicants submit that claims 1-3, 6-8, 10-13, 23-28, and 30 are not anticipated by May because May does not teach each and every element of such claims. For a claim to be anticipated under 35 U.S.C. § 102(b), each and every element of the claim must be found in a single prior art reference. *See* M.P.E.P. § 2131.

For example, amended claim 1 recites an article that includes a layer of retroreflective beads that are partially embedded in the non-adhesive side of the tape. Further, amended claims 10 and 23 each recite an article including a layer of retroreflective beads that are partially embedded in a side of a foam backing. In contrast to claims 1, 10, and 23, May teaches pavement marking tape that includes an elastomeric body 2 having an adhesive layer 3 attached to the base of the body 2 and reflecting material 4 attached to the top surface of the body 2. *See* May, column 3, lines 33-40. May further teaches that the reflecting material 4 is preferably a thin retroreflective sheet including a polymeric support sheet in which a monolayer of transparent microspheres or beads are embedded. *See id.* at column 3, lines 44-47. The reflector support sheet has a layer of adhesive on the back by which it is adhered to the body 2. *See id.* at column 3, lines 49-52. In other words, May teaches that the microspheres are embedded into a polymeric support sheet that is then adhered to the body 2. This is in direct contrast to claims 1, 10, and 23, which recite that the layer of retroreflective beads are partially embedded in either the non-adhesive side of the tape (claim 1) or partially embedded in a side of a foam backing (claims 10 and 23). Therefore, May cannot anticipate claim 1.

Claims 2, 6-8, 11-13, 24-28, and 30, which depend from one of independent claims 1, 10, and 23, are not anticipated by May for the same reasons as presented above for claims 1, 10, and 23. In addition, claims 2, 6-8, 11-13, 24-28, and 30 each recite additional elements that further support patentability when combined with either claim 1, 10, or 23. For example, claim 6 recites

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that the layer of retroreflective beads exhibits an initial reflective brightness prior to being subjected to abrasion cycles and a final reflective brightness after being subjected to a number of abrasion cycles, wherein the final reflective brightness is greater than seventy percent of the initial reflective brightness when the number of abrasion cycles is approximately 750. In contrast to claim 6, May does not teach that the retroreflective beads of the pavement marking tape exhibit a final reflective brightness that is greater than seventy percent of the initial reflective brightness after approximately 750 abrasion cycles.

However, the Office Action alleges that, "[s]ince May discloses glass beads with a coating of aluminum reflective material on their embedded surfaces secured on the non-adhesive side of the tape ..., it is inherent that the reflective brightness of the beads would be greater than 70% or 90% after 750 or 5,000 cycles." Applicants traverse this allegation.

Applicants submit that the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. See M.P.E.P. § 2112. "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). In this case, the Office Action fails to provide a basis in fact and/or technical reasoning that the pavement marking tape taught by May would inherently have the characteristics recited in claim 6 of the present invention. Absent this required factual basis, the Office Action has failed to meet the burden required for an inherency-based rejection.

Further, Applicants respectfully submit that the Office Action's allegation of inherency is inaccurate. As clearly stated in the Specification, brightness testing before and after abrading the material is an indication of how well the reflective beads are bonded to the backing. See, e.g., Specification, page 2, lines 26-27. That the beads taught by May are coated with aluminum reflective material on their embedded surfaces does not necessarily indicate how well such beads are bonded to the backing.

For at least the above reasons, Applicants submit that claims 1-2, 6-8, 10-13, 23-28, and 30 are not anticipated by May. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

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The 35 U.S.C. § 103(a) Rejection

Claims 4-5 and 31-33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over May in view of Carte et al. (U.S. Patent No. 5,947,917).

Applicants traverse this rejection and submit that claims 4-5 and 31-33 are not *prima facie* obvious in view of the cited references for at least the following reasons. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations. See M.P.E.P. § 2143.

Applicants submit that claims 4-5 and 31-33 are not *prima facie* obvious because the combination of May and Carte et al. does not teach all of the elements of such claims. For example, claims 4-5, which depend from independent claim 1, include all of the elements of claim 1. As stated above in regard to the 35 U.S.C. § 102(b) rejection of amended claim 1, May does not teach each and every element of such claim. The addition of Carte et al. does nothing to cure this deficiency already present in May. Therefore, claims 4-5 are not *prima facie* obvious in view of the combination of May and Carte et al.

Further, for example, amended claim 31 recites an article that includes a layer of retroreflective beads that are partially embedded in a non-adhesive side of a medical tape without the use of an adhesive or resin. In contrast to claim 31, May teaches a reflecting material 4 that is attached to the top surface 5 of pavement marker body 2. See May, column 3, line 38. The reflecting material 4 preferably has a layer of adhesive on a back of a polymeric support sheet by which it is adhered to the body 2. *Id.* at column 3, lines 49-51. In other words, May teaches adhering the reflecting material 4 to the body 2, which is in direct contrast to claim 31. The addition of Carte et al. does nothing to correct this deficiency already present in May. Because all of the elements of claim 31 are not taught by the cited references, claim 31 is not *prima facie* obvious.

Claims 32-33, which depend from independent claim 31, are not *prima facie* obvious for the same reasons as presented above for claim 31. In addition, claims 32-33 each recite additional elements that further support patentability when combined with claim 31.

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For at least the above reasons, Applicants submit that claims 4-5 and 31-33 are not *prima facie* obvious in view of the cited references. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

Claims 9, 14, and 29 were also rejected under the 35 U.S.C. § 103(a) as being unpatentable over May in view of Crandall et al. (U.S. Patent No. 5,474,827). Applicants traverse this rejection and submit that claims 9, 14, and 29 are not *prima facie* obvious because the combination of May and Crandall et al. does not teach all of the elements of such claims. For example, claims 9, 14, and 29 depend from either independent claim 1, 10, or 23. As stated above in regard to the 35 U.S.C. § 102(b) rejection of amended claims 1, 10, and 23, May does not teach all of the elements of such claims. The addition of Crandall et al. does nothing to cure the deficiency already present in May.

For at least the above reasons, Applicants submit that claims 9, 14, and 29 are not *prima facie* obvious in view of the cited references. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

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Conclusion

It is respectfully submitted that the pending claims are in condition for allowance. Reconsideration and withdrawal of all rejections are respectfully requested.

No fees are believed to be due by submission of this paper. If this belief is in error, please charge any required fees to Deposit Account No. 13-3723. The Examiner is invited to contact the undersigned at the indicated telephone number with questions that can be resolved with a simple teleconference.

Respectfully submitted,

April 15, 2003
Date

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